THE ROLES OF TECHNOLOGY IN ENHANCING SERVICE EXCELLENCE IN HIGHER EDUCATION

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ABSTRACT

The purpose of this study is to examine the rules of technology in enhancing service excellence in higher education. Service excellence is crucially needed in every business environment and previous studies have proven that, those implementing service excellence will increase their profit and remain competitive in the long run. The study will be thoroughly reviewing previous literatures in getting an idea on the existing condition. To look at how much fast-moving technology has enhanced the implementation of service excellence especially in higher education industry. The aims of the study are to explore any possible advantage of technology in enhancing service excellence. In a highly competitive environment, public universities are suffering from the high demand for unlimited information. Demand for fast communication has turn social media into a big role. In becoming customer's choice, universities all over the world must invest into a new and updated approach or application of mass media to remain competitive. Somehow, searching for related article regarding an approach in improving services in higher education industry by any specific technology is hard to find. Continuous study is needed in shaping our future education industry in becoming a world-class university.

Keywords: *Technology, higher education, service excellence*

INTRODUCTION

Information technology seems to be an important topic for competitive advantage and more business operations have shifted to computers in the 1980s (Jackson & Humble 1994). The authors further mention, technology support has improved customer satisfaction. There is a study reported that since 1960s, rapid growth of technologies is available and have aided the organizations communication processes (Johnson et al. 1998). Among the technological support mentioned in the study are fax, electronic mail,

mobile phones, messaging services and video conference facilities and personal computer. The authors also suggested that, organizational change is probably lagging behind technological innovation (Johnson et al. 1998), which might still be equivalent to the current situation since fast growing technology is expensive and some staffs need high skills to apply it at work. This statement is supported by a recent writer who coded the words of CEO Chicagoland who said "the technology world moves so quickly today that each change accelerates the next. It's critical in such an environment to have a baseline and point of reference to help marketers find their way forward" (Philip Kotler, 2017)

In a competitive and dynamic business environment, the best technologies and the latest applications is the must for any industry in running their business. Study by C. Tien & Talley (2012) named that technological advances are one of the urgent factors for rapid change (C.-Y. Tien & Talley 2012). Last two decades, information technology is considered as a new way in delivering products and services in the business environment to be ahead of their competitors, and in increasing the level of customer satisfaction (Jackson & Humble 1994). Nowadays, internet technology has been mentioned that has a direct impact on companies, customers, suppliers, distributors and players in the service industry in doing their business(Tay et al. 2017). Another example of technology in benefiting the services justified that communication and transfer of knowledge can be achieved with the help of information technology by stopping distance barriers (Ryhan & Mohammed 2013).

Since more than 1400 years ago, holy Quran strengthens the importance of gaining knowledge continuously in life (Qur'an 96:1-5). That is how importance of education to everyone as well as the importance of higher education business as a knowledge provider (Smith, Gareth et al. 2006). That was led to a hot discussion topic in improving delivering services in higher education business, as education is vital and is considered the most important pillar in any country. Besides those reasons, Smith, Gareth et al., (2006) have reported that there are many problems in quality management in higher education institution, resulting from customer that become more fragmented and with high demand that is hard to accommodate (Smith et al. 2006). The authors further highlight that, negative comment resulted from having a poor service can affect an organization reputation (Smith, Gareth et al. 2006). Therefore, many researchers work to improve the quality of education business in various aspects (Fernandez et al. 2009; M. I. H. Reza 2016), but discussions usually focus on dimensions of learning rather than the services provided by people working in higher education institutions (Clewes 2003; Fernandez et al. 2009; Mohammad Imam Hasan Reza 2016). The advantages of information technology must be used in improving the service, over the past two decades there has been a study reported that technological improvements are not in line with the service delivery (Cina 1990).

Besides the reason in improving of excellence service, higher education also must focus on economic growth and innovation (Ryhan & Mohammed 2013). Universities around the world are rushing to market themselves in the global market for financing purposes

affected by the budget cuts implemented by the government (Naidoo & Wu 2014; Ahmad & Farley 2014). With the increase in the number of students' enrolment will increase the university's income, however with fast-moving technology also increases customer knowledge to make the best choice (Abankina et al. 2012; Kitchroen 2004; Naidoo & Wu 2014). The borderless world have increase customers and competitors move forwards for a better value for their investment(Tay et al. 2017). Since previous study have proven the excellent service delivery in many industries in gaining competitive advantage in long run (Shek et al. 2015; Shehadeh et al. 2016). Therefore, higher education must act fast to exploit technological advances in delivering excellent service. This study analyses some of the prior research findings by emphasizing the aspects of information technology in enhancing the delivery of non-academic services in higher education. With the aim of gaining information and hoping to help with future research.

LITERATURE REVIEW

Service Characteristics

A study by Clewes (2003) discusses the characteristics of services with special features defined as intangible "services are performances or actions rather than objects: they cannot be seen, felt or tasted in the same way that one can sense a tangible good" (Clewes 2003). The author has further explained the inability of production and use where services often occur in the presence of users and heterogeneity, which means it is very difficult to standardize the service to every user. There are several definitions of services by different scholars. Khan and Matlay, (2009) have defined service as a performance (Khan & Matlay 2009), while Khairil Wahidin, (2010) has defined service as a very concerted action between service providers and customers, and asking customers to be part of the service delivery process (Aziz & Wahiddin 2010). Zeithaml, Bitner and Gremler in their book, Service Marketing, have described that, "services tend to be more heterogeneous, more intangible and more difficult to evaluate than goods" (Zeitnaml, 2013). The authors have further stated that the distinction between goods and services is not black and white in any way. Since there are different characteristic between product and services, previous researchers have suggested that good measurement scale for services is important in improving the quality of services (Brochado & Brochado 2009; Seebaluck 2016).

Higher Education Industry

Higher education, a complex and diverse industry, also known as education business, is defined as a service provider (Tams 2015; Clewes 2003) that provides an education beyond secondary level to increase human values in every individual to bring betterment to society (M. 2016). The author indicates the responsibility of higher education institutions in preparing future leader from a holistic perspective. The author has further explained in the same report that the importance of higher education business has suddenly increased since many scholars in the twentieth century have reported that

economists have argued that technically, an education business is a public good that progresses by developing human capital or by increasing individual employability for the benefit of nation's economy. Hence, the higher education institutions as a service provider to bring betterment to the society has remained unchanged and it is still regarded as an important agenda that contributes to the economy of any nation (M. 2016).

Besides that, higher education also plays a very important role in ensuring good social mobility, economic growth of the country (Office of Educational Technology 2017). Continuously innovating to increase accessibility, affordability and equity in higher education will foster the higher education function as a great equalizer. The report by Office of Educational Technology in year 2017 highlights, the importance of innovation in developing an ecosystem including a range of opportunities for a variety of high-quality educational experiences and credentials with marketplace value suited for the differing needs of students. The report from National Education Technology Plan (NETP) United States of America explains that the current specification on a student has totally changed. Instead of normal range of ex-secondary school and part time student for long distance study, nowadays the specifications have rich in categories such as range of age, income, geographical aspect, the ability and many other aspect (Office of Educational Technology 2017). As mentioned in the above topics, previous researchers highlighted that, increased customer group divisions, will also increase the various categories of requests. Good applications for a good system from the high technology will assist the university in enhancing excellence service to meet customers' request (Smith et al. 2006).

Service Excellence in Higher Education

There are several definitions of service excellence by previous researchers in their own context. Asif and Gouthier (2014) defined service excellence as "providing services that both exceed customers' expectations and delight them" , the authors mentioned that implementation of service excellence seem crucially needed as a business physiological needs and as a key for higher education institution to challenge the global environment (Asif & Gouthier 2014). The authors have further explained that service excellence will leads to higher profit to the institution. Cina (1990), is the pioneer has differentiated between service excellence and service quality, he is mentioned that service excellence is over and above service quality (Cina 1990). In same report, the author also stated that service excellence can be achieved by specific actions and has suggested five steps towards service excellence which is know your moments of truth, inventory your moments of truth, assess importance/performance of each contact, establish a service management discipline, and implement your action plan (Cina 1990). Another study by Aziz and Wahiddin (2010), explains that service excellence as an expression of a very high satisfaction from customer that resulted from the surprisingly superior performance by the service provider (Aziz & Wahiddin 2010). Somehow, another pioneer scholar, Robert Johnston argued that, defining service excellence as delighting the customer is not helpful, and he was defind service excellence as 'easy to work with' as a result from his survey in defining service excellence in customers' perspective. The above-mentioned researchers have concluded that the definition, the concept and many other aspect of service excellence are still not well established (Cina 1990; Johnston 2004; Aziz & Wahiddin 2010). Several components are needed towards service excellence; therefore,

the correct key drivers must be carefully identified to match it with the norm of education business.

Existing Technology Application in Educational Business and Roles of Technology in Enhancing Service Excellence in Higher Education

The importance of technology has been discussed since 1980s. In 1994, Jackson & Humble, in their study on the role of information technology in service excellence, have revealed that since 1980s there are many studies on information technology that drives competitive advantage through satisfying the organization's customers(Jackson & Humble 1994). The authors have also highlighted that high technology will change how quickly and effectively an organization responds to their customer's need. In that time, which is more than two decades ago, additional cost was justified as a new challenge for an organization.

Besides the roles of technology, previous study highlighted internal customer involvement as another importance element in delivering service excellence(Jackson & Humble 1994; Ryhan & Mohammed 2013). The concept of internal marketing is translated into staff commitment and motivation in improving the quality of service, for the mean times employee playing importance roles in handling organizations' customers (Dobni 2002). On the contrary, the lack of commitment from workers can lead to cost involvement in service failure and loss of organization (Abzari et al. 2011). John C. Munene and Joseph Mpeera Ntayi (2013) in their study have proved that human capabilities are also important in supporting technological advances in enhancing service excellence by explained on how managers from public universities manage their performance using information technology(James Kagaari John C. Munene Joseph Mpeera Ntayi 2013). The study was conducted in Ugandan public universities within the transformation process to meet stakeholders' demands for outstanding service. However, according to the authors, the efforts in providing excellent services has delayed due to employee with low computer literacy, which the institution's (James Kagaari John C. Munene Joseph Mpeera Ntayi 2013). The study by Jackson and Humble (1994) was coded a statement of American executive during that time, Leo Cherne saying that, "The computer is incredibly fast, accurate and stupid. People are unbelievably slow, inaccurate and brilliant. The marriage of the two is a force beyond calculation" (Jackson & Humble 1994). Another fail example was reported by Cheng and Ngai (1998), which is, in their study have highlighted that it is eminent to increase the market share and to response to the challenge in global world by improving the quality of product and services. The study survey founded low response in improving the quality of service by technology is due to low awareness of the potential and benefits of a technology(Cheng & Ngai 1998). The literature has linked the important of internal marketing in benefiting the advancement of the technology applications.

However, in the era of globalization and fast-moving technology, in retaining the competitive edge of an organization is not merely dependent on staff but the organization

should also consider utilize and innovate the current resources within the organization to enhance the knowledge sharing between employees, across teams or departments, therefore it will allow organizations "to exploit and capitalize on knowledge-based resources". (Ryhan & Mohammed 2013). Good technology support will ensure smooth operation such as collection, storage, and distribution of knowledge. The authors have highlighted the importance of ICTs in diffusing knowledge and information and also very helpful to the researchers in completing their research within the stipulated time. Ryhan & Mohammed (2013) also highlighted the roles of technology and applications available such as various choices of searching engine, many applications in analysing the data, recording facilities and modern communication that connected the researchers all over the world in exchanging ideas have save their efforts and time (Ryhan & Mohammed 2013).

As mentioned above, the technological advancement was recognized in improving services, but the implementation is still lacking due to some groups of people that do not possess the technology introduced. More than decades ago, developed country has introduced podcasting as a new technological tool to facilitate good practice in higher education. Podcasting defined as an audio captured event, song, speech or mix of sounds that is posted on a web site or blog for the learning process in higher education context (Fernandez et al. 2009). The authors have discussed podcasting technology as a powerful tool to complement the traditional resources of the teaching materials that help student to enhance studying and improve their learning. The authors in their report have revealed that many researches in podcasting technology in higher education industry only focused at enhancing learning perspective but there is no study that has looked into the tool as a support medium in enhancing service excellence. The important feature of podcasting highlighted by the authors is it's 'accessibility' that allow many students to listen to it at any time and at the most convenient location (Fernandez et al. 2009).

Khan and Matlay (2009) have reviewed the performance of excellence in higher education with technological advancement as an important factor in maintaining competitive advantage in the higher education industry. This study supports the benefits of technology speed generated from the overwhelming globalization era with information that has helped to improve the quality of the best services provided by higher education institutions (Khan & Matlay 2009). Another study by Heng et al. (2016) mentions that higher education industry needs strong support from good technology in improving service as a mechanism in their quest to attract students (Adrian Heng Tsai et al. 2016; Tien & Talley 2012). Similarly, Saritas et al, (2011) have stated that the capabilities of tertiary institutions in facing global challenges should be defended by strong technology (Saritas et al. 2011).

Recent studies by Martin Belvisi and Riccardo Pianeti (2016) report that the relationship between service innovation and service firms' performance is dominated by technology. The authors have further explained that service innovation has been established based on the needs of customers. The authors have also associated human needs to Maslow's theory that causes human demand to increase as human needs increase and have

highlighted the value of customers to be kept from time to time. This phenomenon can only be addressed by continuing the innovation of services supported by the latest technologies in gaining competitiveness (Martin Belvisi, Riccardo Pianeti 2016).

The National Education Technology Plan (NETP) of the United States in their ongoing transformation action has released a report titled "Upgrading the Role of Higher Education Technology" in January 2017, which proposed specific actions for various parties. The objective of this report is to enable "all-time learning and to ensure greater equity and access to lifelong learning opportunities" in continuing to innovate and improve the higher education system in gaining competitive advantage by studying the role of technology. The report also aims that academics and administrators should work together to reduce the gap of achievement towards excellence. The goal is to enable the use of technology anywhere at any time and the institution will provide a flexible educational experience for all students. The report states that the goal is only possible with technology "developed on the grounds of evidence based on the learning science and implemented using an effective strategy that focuses on improving the quality of learning experience and raising results for all students" (Office of Educational Technology 2017). Today's technology news in one of Malaysia's papers shows that technology has become very important in human life and mentions, "humans and technology will merge into a point they are indistinguishable". The report warns that there will always be new technology that will challenge the industry and it will be seen as an opportunity for those who are willing to invest in innovation and take bold first steps. Furthermore, as the machine will become smarter it will close the gap between technology and us, thus it cannot be distinguished from each other. The smarter talkbots will manage customer service to represent the company, however e-mail marketing is still relevant to many Malaysian companies' (Tariq, 2018).

CONCLUSION

The above discussions are based on existing studies from previous literature review. The search for related articles in various journals and any academic paper written regarding technology in supporting the management of non-academic activities in higher education is limited and difficult to find. There is a study on creative approaches to managing online services unless academic services in higher education business are difficult to find in previous literature. It indicates that, there is a very limited number of study on the importance of technology to increase the delivery of services in non-academic area in the higher education industry. Specifically, very little is known on the importance of technology in enhancing service excellence in higher education. Furthermore, the existing studies on the related field are mostly done in 1990s, which is already outdated and possibly not applicable for referring to any judgement or comparison. Many previous scholars in Higher Education studies have devoted their study in searching for the best technique in delivering the knowledge. Some have discussed about technology-based tools that allow new alternative in delivery knowledge to the students to understand and apply the concepts. The technique of knowledge delivery either in classrooms or online

will increase flexibility to the students and the lecturers. However, they have ignored the importance technology towards delivery of service excellence in non-academic in achieving organizational goals. As mentioned above, many studies in higher education industry are focusing on the delivery of academic matters. This might occur due to lots of PhD candidates normally originate from an academic area therefore, searching and improving learning activities is a vital part of their responsibility instead of non-academic activities such as Ryhan & Mohammed (2013) also have focused their study on the advantages of technology to the researchers and university students in acquiring and transferring knowledge. Academic and non-academic staffs, both are carrying the same weight in ensuring the competitiveness in the long term to face the globalization phenomenon with fast-moving technology. Future study is crucially needed to examine the relationship between technology and the implementation of service excellence in higher education industry specifically for non-academic processes. It will assist university managers, policy makers and many others in looking at the importance of technology in enhancing the education business to become comparable to other conglomerates. The podcasting technology advancement and other technological support should be aggressively invested to manage non-academic processes in higher education system to enhance service excellence. Consequently, stakeholders may have the information required on their convenient time and place, and this will reduce the possibility of showing ineffectiveness of an organization. An innovation in the field and function of the technological items or applications that are leveraging the market might give a big impact to the implementation of service excellence in the higher education industry, which will lead to competitive advantage. Continuously searching for innovation in improving quality of services in every angle and aspect such as implemented by National Education Technology Plan (NETP) United States of America will benefit the higher education industry entirely. The specific actions for the future are becoming a guide to the players in the industry in achieving and maintaining excellence in facing global competitiveness phenomenon. Indirectly the report highlights that, in enhancing service excellence in higher education industries, besides the importance of advancement in technological applicant, there is crucial needs for the academicians and administrators to work together in reducing gaps towards the achievement of service excellence.

As a conclusion, this conceptual paper has provided an overall insight into the real situation of approaches relevant to the importance of technology in enhancing excellence in service in the higher education industry. The importance of technology applications cannot run on their own without the help of employees with the capacity to manage any of the applications to be featured. In addition, previous studies show internal marketing in institutions that have an impact on employee satisfaction, are also very important in gaining success to bring excellence in service in the higher education industry. Continuous research in this topic is critically needed, as it will assist in the selection of applications that are appropriate to the education norms and the decision-making process in improving the quality of service delivery, as it will benefit the higher education industry.

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